Web Of Life

Project Learning Tree Activity #45

Program of Studies

Science:

- S-P-SI-1(Ask simple scientific questions that can be answered through observations.)
- S-P-SI-2 (Use simple equipment (e.g., aquariums), tools (e.g., magnifiers, spoons), skills (e.g., observing, pouring), technology (e.g., video discs), and mathematics in scientific investigations.)
- S-P-SI-3 (Use evidence (e.g., observations) from simple scientific investigations and scientific knowledge to develop reasonable explanations.)
- S-P-SI-5 (Communicate (e.g., speak, draw) designs, procedures, and results of scientific investigations.)
- S-P-SI-6 (Question scientific investigations and explanations of other students.)
- S-P-LS-1 (Organisms have basic needs (e.g., air, water, nutrients, light) and can only survive when these needs are met.)
- S-P-LS-6 (Organisms' patterns of behavior are related to the nature of organisms' environments. There are many different environments (e.g., deserts, rainforests) on Earth that support different types of organisms.)
- S-P-LS-7 (All animals depend on plants for food.)
- S-P-AC-5 (Demonstrate how the study of science (e.g., ecology, chemistry) helps explain changes in environments (e.g., pollution).)
- S-4-SI-1 (Ask simple scientific questions that can be answered through observations combined with scientific information.)
- S-4-SI-2 (Use simple equipment (e.g., plant lights), tools (e.g., rulers, thermometers), skills (e.g., describing), technology (e.g., electronic media), and mathematics in scientific investigations.)
- S-4-SI-3 (Use evidence (e.g., descriptions) from simple scientific investigations and scientific knowledge to develop reasonable explanations.)
- S-4-SI-5 (Communicate (e.g., graph, write) designs, procedures, and results of scientific investigations.)
- S-4-SI-6 (Review and ask questions about scientific investigations and explanations of other students.)
- S-4-LS-1 (Organisms have basic needs (e.g., air, water, nutrients, light) and can only survive when these needs are met.)
- S-4-LS-7 (Organisms' patterns of behavior are related to the nature of organisms' environments. There are many different environments (e.g., deserts, rain forests) on Earth that support different types of organisms.)
- S-4-LS-8 (All animals depend on plants for food.)
- S-4-LS-9 (Organisms change the environment. These changes may be detrimental or beneficial.)
- S-5-SI-1 (Identify questions that can be answered through scientific investigations combined with scientific information.)

- S-5-SI-2 (Use appropriate equipment (e.g., watches), tools (e.g., rain gauges), techniques (e.g., classifying), technology (e.g., calculators), and mathematics in scientific investigations.)
- S-5-SI-3 (Use evidence (e.g., classifications), logic, and scientific knowledge to develop scientific explanations.)
- S-5-SI-5 (Communicate (e.g., draw, speak) designs, procedures, and results of scientific investigations.)
- S-5-SI-6 (Review and analyze scientific investigations and explanations of other students.)
- S-5-LS-**1** (Recognize the relationship between structure and function at all levels of organization (e.g., organ systems, whole organisms, ecosystems).)
- S-5-AC-3 (Recognize how science is used to understand changes in populations, issues related to resources, and changes in environments.)
- S-6-SI-1 (Identify and refine questions that can be answered through scientific investigations combined with scientific information.)
- S-6-SI-2 (Use appropriate equipment (e.g., binoculars), tools (e.g., beakers), techniques (e.g. ordering), technology (e.g., calculators), and mathematics in scientific investigations.)
- S-6-SI-3 (Use evidence (e.g., orderings, organizations), logic, and scientific knowledge to develop scientific explanations.)
- S-6-SI-5 (Communicate (e.g., speak, write) designs, procedures, and results of scientific investigations.)
- S-6-SI-6 (Review and analyze scientific investigations and explanations of other students.)
- S-6-LS-4 (Investigate energy flow in ecosystems.)
- S-6-LS-5 (Investigate factors (e.g., resources, light, water) that affect the number of organisms an ecosystem can support.)
- S-6-AC-2 (Recognize how science is used to understand changes in populations, issues related to resources, and changes in environments.)

Core Content

Science:

- SC-E-SI-1 (Ask simple scientific questions that can be investigated through observations combined with scientific information.)
- SC-E-SI-2 (Use simple equipment (e.g., magnifiers, magnets), tools (e.g., metric rulers, thermometers), skills (e.g., classifying, predicting), technology (e.g., electronic media, calculators, World Wide Web), and mathematics in scientific investigations.)
- SC-E-SI-3 (Use evidence (e.g., observations, data) from simple scientific investigations and scientific knowledge to develop reasonable explanations.)
- SC-E-SI-5 (Communicate (e.g., draw, graph, write) designs, procedures, observations, and results of scientific investigations.)
- SC-E-SI-6 (Review and ask questions about scientific investigations and explanations of other students.)
- SC-E-AC-2 (Examine how designing and conducting scientific investigations fosters an understanding of issues related to natural resources (e.g., scarcity), demonstrate how the study of science (e.g., aquariums, living systems) helps explain changes in environments, and examine the role of science and technology in communities (e.g., location of landfills, new housing developments).)
- SC-E-3.1.2 (Organisms have basic needs. For example, animals need air, water, and food; plants need air, water, nutrients, and light. Organisms can survive only in environments in which their needs can be met.)
- SC-E-3.3.1 (Plants make their own food. All animals depend on plants. Some animals eat plants for food. Other animals eat animals that eat the plants.)
- SC-E-3.3.2 (The world has many different environments. Distinct environments support the lives of different types of organisms. When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations.)
- SC-E-3.3.3 (All organisms, including humans, cause changes in the environment where they live. Some of these changes are detrimental to the organism or to other organisms; other changes are beneficial (e.g., dams built by beavers benefit some aquatic organisms but are detrimental to others).)
- SC-M-SI-1 (Refine and refocus questions that can be answered through scientific investigation combined with scientific information.)
- SC-M-SI-2 (Use appropriate equipment, tools, techniques, technology, and mathematics to gather, analyze, and interpret scientific data.)
- SC-M-SI-3 (Use evidence (e.g., computer models), logic, and scientific knowledge to develop scientific explanations.)
- SC-M-SI-5 (Communicate (e.g., write, graph) designs, procedures, observations, and results of scientific investigations.)
- SC-M-SI-6 (Review and analyze scientific investigations and explanations of other students.)
- SC-M-3.5.1 (A population consists of all individuals of a species that occur together at a given place and time. All populations living together and the physical factors with which they interact compose an ecosystem.)
- SC-M-3.5.2 (Populations of organisms can be categorized by the function they serve in an ecosystem. Plants and some microorganisms are producers because they make their own food. All animals, including humans, are consumers, and obtain their food by eating other organisms. Decomposers, primarily bacteria and fungi, are consumers that

use waste materials and dead organisms for food. Food webs identify the relationships among producers, consumers, and decomposers in an ecosystem.)

- SC-M-3.5.4 (The number of organisms an ecosystem can support depends on the resources available and abiotic factors (e.g., quantity of light and water, range of temperatures, soil composition). Given adequate biotic and abiotic resources and no diseases or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.)